

In the Claims:

Please amend the claims as indicated below.

1. (Currently amended) An apparatus for use in transactions, comprising:

non-volatile memory containing a set of multiple identifiers associated with a same customer account, wherein said multiple identifiers are also known to an agency providing said customer account,

a processor operable to select, for each of a plurality of transactions involving the same customer account, a different identifier from said set of multiple identifiers for use with the respective transaction, and

a communications facility operable to communicate with a terminal,

wherein the apparatus is operable to:

receive bill details for a given transaction of said plurality of transactions from the terminal through the communications facility,

generate a transaction record from the bill details, wherein the transaction record includes a particular identifier selected by the processor from said set of multiple identifiers, and

transmit the transaction record to the terminal through the communications facility.

2. (Original) The apparatus of claim 1, wherein each of the identifiers in said set of multiple identifiers is allocated by the agency uniquely to the apparatus.

3. (Canceled)

4. (Previously presented) The apparatus of claim 1, wherein the transaction record includes a digital signature that is generated using a cryptographic key contained within the non-volatile memory.

5. (Previously presented) The apparatus of claim 1, wherein the transaction record is encrypted.

6. (Original) The apparatus of claim 1, wherein said apparatus is provided within inert packaging to allow implantation into the human body.

7. (Previously presented) The apparatus of claim 1, wherein said apparatus is operable to engage a first class of terminals external to the apparatus for making a transaction, and a second class of terminals external to the apparatus to enter or to update account information stored in the non-volatile memory.

8. (Original) The apparatus of claim 7, further comprising first and second power circuits that are activated by said first and second class of terminals respectively, wherein activation of said second power circuit does not allow account information to be entered or updated in at least certain portions of said non-volatile memory.

9. (Currently amended) A method for making a transaction with a device, comprising:

storing within the device a set of multiple identifiers associated with a same customer account, wherein said multiple identifiers are also known to an agency providing said customer account, and

for each of a plurality of transactions involving the same customer account:

the device selecting a different identifier from said set of multiple identifiers for use with the respective transaction,

engaging a terminal,

the device receiving bill details for the respective transaction from the terminal,

the device generating a transaction record from the bill details, wherein the transaction record includes said selected identifier that was selected from said set of multiple identifiers, and

the device transmitting the transaction record to the terminal.

10. (Original) The method of claim 9, wherein each of the identifiers in said set of multiple identifiers is allocated by the agency uniquely to the device.

11. (Canceled)

12. (Previously presented) The method of claim 9, wherein the transaction record includes a digital signature that is generated using a cryptographic key contained within the non-volatile memory.

13. (Previously presented) The method of claim 9, further comprising encrypting the transaction records.

14. (Currently amended) The method of claim 9, further comprising, for a given period of time, limiting the number of performed transactions ~~rate of the device~~ to prevent rapid read-out of the identifiers.

15. (Previously presented) Apparatus for use in transactions, including:

means for storing a set of multiple identifiers associated with a same customer account, wherein said multiple identifiers are also known to an agency providing said customer account,

means for selecting, for each of a plurality of transactions involving the same customer account, a different identifier from said set of multiple identifiers for use with the respective transaction, and

means for creating a respective transaction record for each of the plurality of transactions, wherein the respective transaction record comprises a digital signature that is generated using a cryptographic key.

16. (Previously presented) Apparatus for use in making a transaction, including:

non-volatile memory containing a set of multiple identifiers, wherein said multiple identifiers are also known to an agency associated with the transaction, and

a processor operable to randomly or pseudo-randomly select one identifier from said set of multiple identifiers for use in any transaction.

17. (Previously presented) A method, comprising:

opening an account record in an agency computer system, wherein said agency is to provide the account,

generating a set of multiple identifiers to be used for transactions on the account,

storing the set of multiple identifiers in the agency computer system,

storing the set of multiple identifiers on a portable transaction device,

receiving a public key from the portable transaction device;

receiving a transaction record comprising a digital signature from the portable transaction device, and

decrypting and validating the digital signature with the public key.

18. (Original) The method of claim 17, wherein the identifiers are unique to the account for the agency.

19. (Original) The method of claim 18, further comprising adding the identifiers to an index, wherein said index maps from an identifier to the corresponding account.

20. (Currently amended) The method of claim 17, wherein the multiple identifiers are a subset of identifiers selected from a larger sparsely distributed across the set of possible identifiers.

21. (Original) The method of claim 17, wherein the identifiers within said set of multiple identifiers are unrelated to one another.

22. (Original) The method of claim 17, wherein the identifiers are generated on the agency computer system, and are transmitted to the portable transaction device for storage thereon.

23. (Original) The method of claim 17, further comprising generating at least one cryptographic key for use with the account.

24. (Original) The method of claim 17, further comprising making a prepayment onto the account prior to using the account for transactions.

25. (Currently amended) The method of claim 17, further comprising, prior to opening the account, establishing~~determining~~ an identity of a person who is to hold the account ~~prior to opening the account~~.

26. (Currently amended) A method for performing a given transaction at a terminal using a portable transaction device, comprising:

generating a bill for the transaction at the terminal,

engaging the portable transaction device with the terminal,

transmitting the bill from the terminal to the transaction device,

selecting via the portable transaction device, for each of a plurality of transactions involving a same customer account, a different account identifier from a set of multiple account identifiers stored on the portable transaction device for use in [[the]] transactions, wherein said plurality of transactions includes said given transaction,

generating a transaction record on the transaction device, the transaction record ~~incorporating~~including information from the bill and the selected account identifier that is selected via the portable transaction device from said set of multiple account identifiers for said given transaction, and

transmitting the transaction record to the terminal.

27. (Original) The method of claim 26, wherein the transaction record includes a digital signature from the transaction device.

28. (Currently amended) The method of claim 26, wherein the transaction device is associated with a customer account, and wherein said multiple account identifiers are also known to an agency providing said customer account, the method further comprising:

transmitting the transaction record from the terminal to an agency computer,

accessing an account record for the customer account based on the selected account identifier included in the transaction record,

validating the transaction, and

updating the account record in respect of the validated transaction.

29. (Original) The method of claim 28, wherein prior to transmitting the transaction record from the terminal to the agency computer, the terminal incorporates its own copy of the bill into the transaction record.

30. (Currently amended) A method of operating a computer account system at an agency, ~~said agency maintaining a plurality of customer accounts on the computer account system, wherein each customer account has a set of multiple identifiers associated therewith,~~ the method comprising:

maintaining a plurality of customer accounts on the computer account system;

storing multiple sets of identifiers, wherein each of said sets is associated with a respective one of said customer accounts, wherein each of said sets comprises at least two identifiers belonging to the set;

receiving a request for a transaction on a given customer account, wherein the request comprises a digital signature generated by a transaction device associated with the customer account,

verifying the digital signature,

accessing an identifier within the request,

from said multiple sets of identifiers, determining [[which]]a particular set of
[[multiple]] identifiers to which the accessed identifier belongs[[to]], and
from [[this]]the determined particular set determining a particular
customer account for the transaction, wherein the particular customer
account is a customer account to which the particular set is associated, and

updating an account record of the determined particular customer account in respect of the transaction.

31. (Currently amended) The method of claim 30, wherein determining [[which]]the particular set of multiple identifiers the accessed identifier belongs to comprises accessing an index that maps identifiers to corresponding account records.

32. (Canceled)

33. (Original) The method of claim 30, further comprising opening a new customer account by:

creating a new account record for the new customer account, and

storing a set of multiple identifiers associated with the new customer account into the new account record.

34. (Original) The method of claim 33, further comprising:

generating the set of multiple identifiers associated with the new customer account, and

transmitting the generated set of multiple identifiers to a customer transaction device for use in communications between the computer account system and the customer transaction device.

35. (Original) The method of claim 33, further comprising generating at least one cryptographic key for use in communications between the computer account system and the customer transaction device.

36. (Currently amended) A computer account system at an agency, said system comprising:

a plurality of stored customer account records, wherein each customer account record incorporates a set of multiple identifiers associated therewith, and

a[[n]] stored index that indicates a mapping[[s]] of each of the sets of multiple identifiers to a corresponding account record[[s]] of said plurality of stored customer account records,

wherein the system is configured to:

receive a request for a transaction on a customer account, wherein the request comprises a digital signature generated by a transaction device associated with the customer account,

access an identifier within the request ~~in order to~~, determine [[which]]a particular set of multiple identifiers to which the accessed

identifier belongs, and determine the particular henee—which
customer account to which the accessed identifier belongs as
specified by said index, and

access the digital signature within the request and use a cryptographic key
to validate the digital signature.

37. (Original) The system of claim 36, wherein the multiple identifiers associated
with the customer account record are unique to that account record.

38. (Canceled)

39. (Currently amended) A computer account system at an agency, said system
comprising:

means for storing a plurality of customer account records, wherein each customer
account record incorporates a set of multiple identifiers associated
therewith,

means for storing a mapping of each of the sets of multiple identifiers to a
corresponding account record[[s]] of said plurality of stored customer
account records,

means for accessing an identifier within a received transaction request, [[to]]
determining[[e]] [[which]]a particular set of multiple identifiers to which
the accessed identifier belongs, and henee—whichdetermine the particular
customer account to which the accessed identifier belongs as specified by
said mapping [[to]],

means for accessing a digital signature comprised within the received transaction
request and validating the digital signature, and

means for updating a customer account record of the customer account to which the accessed identifier belongs in accordance with the received transaction request.